

REMARKS

The Examiner rejected Claims 39-71 under 35 U.S.C. 112, first paragraph, as being based upon a disclosure that is non-enabling because the independent claims do not recite the presence of electrical excitation zone treated surfaces. This rejection is respectfully traversed.

The Examiner is respectfully directed to Page 1, Lines 13-21 of the specification, wherein it is stated that:

"Certain preferred composite materials for the practice of the herein described invention are those polymeric beads associated with each other through use of adhesive materials The most preferred composite materials for the practice are those polymeric bead/adhesive composite materials wherein the polymeric bead component is comprised of beads that have been treated in an electrically excited field" (emphasis added).

Thus, although the specification describes the use of electrical excitation zone treatment processes to effect treatments of the surface areas of the beads, the use of such processes is neither critical nor essential to the practice of the invention. On the contrary, the specification clearly contemplates that although the beads may be subjected to the electrical excitation zone treatment processes described therein, it is clearly stated that such treatment processes are only preferred, not required. Thus, this rejection is untenable and should be withdrawn.

Furthermore, it should be noted that independent Claim 69 and dependent Claims 70 and 71 do, in fact, include the recitation of "a plurality of beads having electrical excitation zone-treated surfaces." Thus, the rejection is clearly inappropriate relative to these claims and should be withdrawn.

The Examiner also rejected Claims 39-71 under 35 U.S.C. 112, second paragraph, stating independent Claims 39 and 69 were "grammatically ambiguous" and did not "clearly and accurately convey the spatial relationship of the claimed elements." The rejection is not understood and, therefore, is respectfully traversed.

Independent Claim 39 clearly and unambiguously defines the invention as a composite material that includes a plurality of beads having average diameters between about 1 mm and about 10 mm and an adhesive coating provided on at least 50

percent of the surfaces of at least 50 percent of the plurality of beads. A cured form of the adhesive has a hardness ranging from about Shore A 25 to about Shore A 95. The adhesive represents between about 20 percent and about 80 percent of the weight of the composite material. The plurality of beads and the adhesive create a composite material having a system of void spaces. Independent Claim 69 defines the invention in a similar manner, except that the plurality of beads has electrical excitation zone-treated surfaces. Such claims are believed to clearly and unambiguously define the scope of the invention.

The Examiner stated that the "current phraseology is unclear as to how the beads and the adhesive are arranged." However, the claims clearly recite "a plurality of beads having an adhesive coating provided on at least 50 percent of the surfaces of at least 50 percent of the plurality of beads." The Examiner's statement that this "phraseology is unclear" is not understood. Therefore, clarification of the rejection is respectfully requested.

The Examiner rejected independent Claim 39 under 35 U.S.C. 103(a) as being obvious in view of the combined teachings of the Kasahara et al. reference and the Frankel reference. The Examiner also rejected independent Claim 69 under 35 U.S.C. 103(a) as being obvious in view of the combined teachings of the Kasahara et al. reference, the DVD Lectro Engineering reference, and the Frankel reference. These rejections are respectfully traversed.

Independent Claim 39 defines the invention as a composite material including a plurality of beads having average diameters between about 1 mm and about 10 mm. An adhesive coating is provided on at least 50 percent of the surfaces of at least 50 percent of the plurality of beads. A cured form of the adhesive has a hardness ranging from about Shore A 25 to about Shore A 95. The adhesive represents between about 20 percent and about 80 percent of the weight of the composite material. The plurality of beads and the adhesive create a composite material having a system of void spaces. Independent Claim 69 defines the invention in a similar manner, except that the composite material includes a plurality of beads having electrical excitation zone-

treated surfaces, and the adhesive coating is provided on at least 50 percent of the electrical excitation zone-treated surfaces.

In response to the applicant's previous arguments (see Paragraph 12 of the Final Rejection), the Examiner referred to three references that are not part of the basis of the Examiner's rejections, namely, U.S. Patent No. 4,777,630 to Shannon et al., U.S. Patent No. 5,921,024 to Minoji, and Japanese Patent Document No. 63-145,362. The Examiner's reliance upon these three references is improper because they are not part of the stated bases for the rejections (which are set forth above). Thus, the Examiner's rejections are faulty pursuant to 37 C.F.R. 1.104(c)(2) and should be withdrawn.

Regarding independent Claim 39, the Examiner cited the Frankel reference as teaching "an acrylic emulsion [that is] useful as an adhesive having a Shore A hardness of 25." To support this, the Examiner opined that the motivation for combining the Frankel reference with the Kasahara et al. reference was to "provide a porous foam plate with improved toughness and tensile strength." However, the Frankel reference simply does not show or suggest any such need for "improved toughness and tensile strength" as suggested by the Examiner. It is believed that the Examiner is engaging in creative hindsight in order to justify a combination of references that no person of ordinary skill in the art would reasonably combine. The use of such creative hindsight, however, is clearly impermissible. Therefore, the rejection is improper and should be withdrawn.

Regarding independent Claim 69, the Examiner still has not clearly expressed why the previously-filed Runkles Declaration was "ineffective to overcome the finding of obviousness." The Runkles Declaration sets forth facts that support a finding that the DVD reference is non-analogous art to the claimed invention. The Runkles Declaration sets forth additional facts that support a finding that the DVD reference cannot be properly combined therewith as suggested by the Examiner. In response, the Examiner has merely stated that the Runkles Declaration was "ineffective to overcome the finding of obviousness, providing no factual basis for this conclusion. Because all of the facts set forth in the Runkles Declaration remain uncontroverted by

any factual evidence, the Examiner's rejection is fatally flawed and should be withdrawn.

Finally, it was previously argued that even if the teachings of the Kasahara et al. reference and the DVD reference are combinable, the resultant structure is quite different from the claimed invention because the DVD reference relates to a process for the surface treatment of an article. Therefore, a proper combination of the two references would result in the porous foam plate of the Kasahara et al. reference being subjected to the surface treatment disclosed in the DVD reference. Thus, the combined teachings of the two references does not result in the claimed structure, wherein the plurality of beads having electrical excitation zone-treated surfaces. Rather, the combined teachings of the two references results in a porous foam plate having only an outer surface that is surface treated, not the plurality of beads. Thus, even if the teachings of the Kasahara et al. reference and the DVD reference are combined, the claimed invention is not achieved.

In response to this argument, the Examiner stated that the "foam plate itself is made of the plurality of beads [and] it is not seen why the beads could not have surfaces being treated as the foam plate is subjected to the surface treatment." This statement clearly illustrates that the Examiner is incorrectly placing the burden of proving the invention is patentable on the applicant, rather than correctly placing the burden of proving that the invention is not patentable on the Examiner. The Examiner has failed to address the applicant's position, namely, that the DVD reference relates to a process for the surface treatment of an article and, as a result, a proper combination of the two references would result in the surface of the porous foam plate of the

Kasahara et al. reference being subjected to the surface treatment disclosed in the DVD reference. Accordingly, the rejections are untenable and must be withdrawn.

Respectfully submitted,

/richardsmacmillan/

Richard S. MacMillan
Reg. No. 30,085

MacMillan, Sobanski & Todd, LLC
One Maritime Plaza, Fifth Floor
720 Water Street
Toledo, Ohio 43604
(419) 255-5900